



taxpayers and western landowners with billions of dollars of cleanup costs to restore land and water supplies damaged by drilling. By adopting the following recommendations, the Bureau of Land Management (“BLM”) can create positive incentives for responsible oil and gas development through proactive reclamation planning and adequate financial assurance:

- Require Geographic Area Development Plans that contain comprehensive, site-specific reclamation plans and full-cost estimates of reclamation.
- Specify mandatory performance standards for reclamation.
- Replace current lease, statewide, and nationwide blanket bonds with a simple \$20,000 per well bond.
- Allow for a site-specific reclamation bond in lieu of the \$20,000 per well bond.
- Improve inspection, monitoring, and enforcement.

Pursuant to 5 U.S.C. § 553(e) and 43 C.F.R. §14.2, the undersigned organizations formally request that the Department of Interior’s Bureau of Land Management promulgate new reclamation and bonding regulations that ensure complete and prompt ecosystem restoration and that the costs of restoring the landscape be borne by oil and gas lessees and operators instead of taxpayers and local landowners. Petitioners have attached proposed revisions to the applicable regulations at 43 C.F.R. §§ 3104; 3160-3163.

For over a decade, the BLM and other governmental and non-governmental organizations have called for a revision of current reclamation and bonding regulations to reflect current development realities. Nonetheless, no action has been taken. Failure to act on this petition not only ignores these calls for change, but also runs contrary to sound economic principles and applicable laws and regulations.

## **II. SUMMARY OF GROUNDS AND EVIDENCE**

In an effort to encourage greater domestic oil and gas production, the Bush Administration and Congress have offered an array of tax breaks to the oil and gas industry while easing regulations and speeding up the issuance of drilling permits. Coupled with high oil and gas prices, the push for oil and gas drilling has resulted in a record number of drilling applications. State-level oil and gas commissions and the BLM have issued record numbers of oil and gas permits. Oil and gas companies must be obligated to reclaim damaged lands, protect water resources, and bear the risk of clean-up costs – not taxpayers or landowners. A simple two-step formula would ensure responsible behavior. First, BLM should require site-specific reclamation plans based on clear standards. Second, oil and gas lessees and operators must provide sufficient financial assurance to cover the full costs of reclamation.

The use of financial assurance to ensure reclamation is common in the extractive natural resource industries in the U.S. and worldwide. Programs requiring detailed reclamation plans and corresponding financial assurance have been in place in the U.S. coal and hardrock mining industries for more than 30 years. The basic concept of financial assurance is that in the event the developer refuses or otherwise fails to perform the required reclamation activities, the activities can be performed at the direction of the responsible party (federal or state land

administrator or private landowner) by a third party contractor. The intent is simple – the industrial user of lands and resources is required to insure that they pay for the reclamation.

Although reclamation and financial assurance have been required for oil and gas development on public lands, evidence increasingly suggests that reclamation in many (or most) cases fails to meet intended standards.<sup>1</sup> The use of blanket bonds rather than financial assurance based on the full costs to restore actual disturbed acres has resulted in funds that fall grossly short of actual costs. In fact, because blanket bonds were intended to encourage reclamation, but were not intended to provide the state and federal agencies the necessary funds to perform reclamation and other activities in the event the operator failed to do so, they do not actually constitute real financial assurance. As BLM has acknowledged, the use of larger geographical area development plans or master plans that take into account the regional environmental impacts of large-scale development are also essential to proactive planning and effective reclamation.<sup>2</sup>

Twenty years ago when oil and gas drilling was less extensive in most of the Western U.S., the amount of land disturbed was relatively small and impacts were generally isolated and easy to dismiss. However, during the boom of the last five to ten years, drilling and associated development activities have expanded rapidly and the impacts are now widespread and easily discernable. One cannot fly over the Western U.S. without seeing evidence of the impacts of coal bed methane (“CBM”) and oil and gas drilling on the surface of public and private lands. As regulators admit – and as those who use public lands for grazing, recreation, and other purposes already know – existing reclamation plans lack detail in most cases, and are nonexistent in many others. Financial assurance is often based on statewide or nationwide blanket bonds that are limited to a maximum of \$25,000 or \$150,000 per company, respectively.

**A. Current Oil and Gas Regulations Are Inadequate to Protect Landowners, Taxpayers, and the Environment.**

The inadequacy of current reclamation and financial assurance requirements has been exacerbated both by the scope and the type of oil and gas development currently occurring in the Western U.S. Many Western landowners are greatly concerned that oil and gas development occur in a more sustainable and responsible manner that does not destroy surface water or groundwater resources, impair the value of the surface estate, or interfere with other uses of the land.<sup>3</sup> This is particularly problematic in split-estate situations where the subsurface mineral estate and the surface estate are owned and/or leased by different parties.

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<sup>1</sup> See Decl. of James R. Kuipers ¶ 7, attached as Exh. A; Decl. of Nancy Sorenson ¶ 9, attached as Exh. B; Decl. of Scott Crockett ¶ 10, attached as Exh. C; Declaration of Robert Elderkind, attached as Exh. D; and Declaration of Donald Nelson, attached as Exh. E.

<sup>2</sup> See BLM, *Proposed Rule to Revise Oil and Gas Order Number 1*, 72 Fed. Reg. 12656 (March 13, 2006); see also BLM, Instruction Memorandum 2003-152.

<sup>3</sup> See Decl. of Nancy Sorenson; Decl. of Scott Crockett; Decl. of Patrick Sweeney at 3, attached as Exh. 1, Western Organization of Resource Council’s Brief in Support of Motion for Summary Judgment, *Western Organization of Resource Councils, et al. v. Clarke, et al.*, No. CV 03-70-BLG RWA (D. MT 2003).

According to the Government Accountability Office, the “dramatic increase in oil and gas development on federal lands over the past 6 years has lessened BLM’s ability to meet its environmental protection responsibilities.”<sup>4</sup> Tens of thousands of new CBM wells are being planned in Western states over the next decade, including roughly 51,000 in Wyoming’s Powder River Basin alone.<sup>5</sup> The myriad environmental effects of CBM extraction were unforeseen at the time when current bonding regulations were implemented decades ago. BLM predicts that in Wyoming alone hundreds of thousands of acres of soil and vegetation will be disturbed, 17,000 miles of new roads constructed, 20,000 miles of new pipelines built, 5,300 miles of new overhead power lines laid, and up to 1.4 trillion gallons of water produced as a result of CBM production.<sup>6</sup> The extent and scope of damage from CBM production could not have been known, let alone accounted for, when the current bonding regulations were implemented because it was not until the past decade that CBM became a major form of energy development in the West.

Oil and gas is found in many different underground deposits and geographic areas. Those deposits that occur in relatively shallow, highly porous rock formations are known as conventional accumulations, and they tend to exist in localized deposits. Nonconventional (also known as unconventional) oil and gas deposits tend to occur over large geographic areas rather than localized accumulations. Nonconventional gas includes coalbed methane, tight sands and gas shales. Nonconventional oil deposits include heavy oils, tar sands and oil shales.

Developing any type of oil and gas deposit results in myriad impacts. For example, all types of oil and gas development involve the construction of roads, drill pads, pipelines and power lines, and may also involve water containment ponds and pits, compressor stations, etc. The damage that can occur from the development of the oil and gas estate includes, but is not limited to:

- harm to wildlife species and habitat,
- impairment of water quality and quantity,
- the introduction and spread of noxious weeds,
- soil damage, contamination and erosion,
- long term loss of the land’s carrying capacity, and

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<sup>4</sup> Government Accountability Office, *Oil and Gas Development: Increased Permitting Activity Has Lessened BLM’s Ability to Meet Its Environmental Protection Responsibilities* 5 (June 2005), available at <http://www.gao.gov/new.items/d05418.pdf>.

<sup>5</sup> U.S. Dept. of Interior, The Bureau of Land Management (BLM), *Final Statewide Oil and Gas EIS and Proposed Amendment of the Powder River and Billings Resource Management Plans (WY FEIS): Minerals Appendix; Minn-28 – Minn-29* (January 2003); BLM, *Final CBM Environmental Impact Statement Wyoming* (January 2003); Western Governor’s Association, *Coalbed Methane Best Management Practices: A Handbook* 4 (April 2004), available at <http://www.westgov.org/wga/initiatives/coalbed/CoalBedMethane.pdf>; Coalbed Methane Coordination Coalition, available at <http://www.cbmcc.vcn.com/wells2.htm> (In January 1997, there were 187 producing CBM wells in Wyoming; in January 2004 there were 12,238.).

<sup>6</sup> *Id.*

- reduction in property values and loss of income.

The most significant impact from CBM extraction is the process known as dewatering, which involves pumping water out of the coal seams in order to reduce the water pressure which liberates the gas from the surface of the coal.<sup>7</sup> The disposal cost of produced water generated from CBM production has been estimated to be 38 times greater than that generated by onshore conventional gas wells.<sup>8</sup> To date, 1,200 wells in Colorado's San Juan Basin have produced nearly 36 billion gallons of water.<sup>9</sup> Through April 2005, CBM production in the Powder River Basin has produced over 126 billion gallons of water, 89% of that having been produced since January 2000.<sup>10</sup> BLM predicts that another 1.4 trillion gallons of water will be produced in the Powder River Basin in Wyoming over the next 15 years.<sup>11</sup> The hidden costs of this water loss to the people of Montana and Wyoming have been estimated at between \$2.1 billion and \$10.1 billion over the next twenty years.<sup>12</sup> Current bond amounts were not designed to cover the environmental costs associated with produced water at these enormous quantities and are thus inadequate to ensure complete reclamation, as required by the Mineral Leasing Act.<sup>13</sup>

The detrimental impacts of CBM – particularly on ranchers, farmers, and other rural landowners – are widespread and have been well documented.<sup>14</sup> According to Patrick Sweeney, Regional Director of the Western Organization of Resource Councils (“WORC”):

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<sup>7</sup> D. Keith Murray, *Coalbed Methane Reservoir Evaluation and Completion Technology Atlas of Major Rocky Mountain Gas Reservoirs*, New Mexico Bureau of Mines and Mineral Resources 188 (1993); R. Rogers, *Coalbed Methane: Principles and Practice* 148 (1994).

<sup>8</sup> Thomas S. Ahlbrandt, *Adequacy of Energy Resources for the Future* 16 SPG Nat. Resources & Env't 220-221 (2002).

<sup>9</sup> BLM, *Record of Decision - Farmington Proposed Resource Management Plan and Final Environmental Impact Statement* (2003), available at [http://www.nm.blm.gov/ffo/ffo\\_p\\_rmp\\_feis/ffo\\_p\\_rmp\\_index.html](http://www.nm.blm.gov/ffo/ffo_p_rmp_feis/ffo_p_rmp_index.html).

<sup>10</sup> Wyoming Oil and Gas Conservation Commission, *Coal Bed Production* (1987-2006), available at <http://wogcc.state.wy.us/coalbedchart.cfm>.

<sup>11</sup> BLM, *Draft Environmental Impact Statement and Draft Amendment for the Powder River Basin Oil and Gas Project*, 2-24 (January 2006), available at <http://www.wy.blm.gov/nepa/prb-deis>.

<sup>12</sup> Joshua Skov and Nancy Myers, *Easy Money, Hidden Costs: Applying Precautionary Economic Analysis to Coalbed Methane in the Powder River Basin* 16-17 (June 2004), available at [www.sehn.org/pdf/cbm.pdf](http://www.sehn.org/pdf/cbm.pdf).

<sup>13</sup> 30 U.S.C. § 226(g) (2006).

<sup>14</sup> See generally, Decl. of Nancy Sorenson; Decl. of Scott Crockett; Decl. of Jim Kuipers, Decl. of Robert L. Elderkin, attached as Exh. D; and Declaration of Donald Nelson, attached as Exh. E. See also Declarations attached as Exhibits 1-9 to Western Organization of Resource Council's Brief in Support of Motion for Summary Judgment, *Western Organization of Resource Councils, et al., v. Clarke, et al.*, No. CV 03-70-BLG RWA (D. MT); see generally, Declarations attached as Exhibits 1-8 to Opening Brief of Western Organization of Resource Councils, et al, *Western Organization of Resource Councils, et al., v. Clarke, et al.*, No. 04-CV-00018-J (D. WY).

“CBM-produced water has flooded our members’ pastures and hay meadows, causing significant damage to soils and forage for their cattle. CBM development has polluted important sources of agricultural and domestic water, interfering with our members’ ability to irrigate their fields. CBM development has also dewatered aquifers to such a great extent in some areas that domestic and agricultural water wells have dried up. In this arid part of the world, the availability of clean water for irrigation, for livestock watering and for domestic water uses is clearly critical to our membership.”<sup>15</sup>

Many of the adverse effects of CBM water discharge on surrounding landowners are not adequately mitigated in part because current bonding regulations do not require oil and gas lessees and operators to post bonds that cover the full cost of such effects. Eric Barlow, a Wyoming rancher, described some of the impacts of CBM development on his land as follows:

“It flooded fields and became stagnant in low-lying areas. In some areas it drowned out and killed the grasses with its continual presence. Once the water evaporated or flowed downstream, we were left with salty white deposits where the water once stood. In several areas nothing was able to grow for the entire growing season. The water table along the side channel was elevated by the continuous flow of CBM water, and this high water table altered the plant community. The plant community favored by the artificial water table was less palatable and, in many instances, unusable by livestock and wildlife. The standing water resulted in foot rot for many of our cattle, causing lameness that in several cases required treatment. We also lost our natural irrigation water because the upstream dams did not have a bypass channel, they withheld the natural flows from snow melt and subsequent rainstorms and mixed this good water with the CBM water. These natural flows we have lost are often quite large and serve the necessary role of flushing the system. This flushing acts to rejuvenate the soil and plants.”<sup>16</sup>

CBM water is often incompatible with irrigation and other uses because of its elevated levels of sodium absorption ratio and electrical conductivity pollutants.<sup>17</sup> One landowner has expressed “concern about what will be left behind when production stops – empty pits with barren soils, little or no vegetative cover, and salts and other pollutants being blown across the

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<sup>15</sup> Decl. of Patrick Sweeney at 2.

<sup>16</sup> Decl. of Eric Barlow, attached as Exh. 8, Western Organization of Resource Council’s Brief in Support of Motion for Summary Judgment, *Western Organization of Resource Councils, et al., v. Clarke, et al.* 4-5 No. CV 03-70-BLG RWA (D. MT).

<sup>17</sup> *Id.* at 5 (explaining that CBM water flowing through his property was found to have sodium absorption ratios and electrical conductivity pollutants at levels well above that allowed by Wyoming Department of Environmental Quality’s permitted discharge levels for irrigation compliance points).

landscape.”<sup>18</sup> A rancher in the Powder River Basin explained that sometimes produced water “is allowed to simply run down ephemeral channels to irrigated meadows where it forms ice sheets in the winter and kills palatable vegetation and trees, replacing them with weeds and fox tail which wildlife and livestock will not eat.”<sup>19</sup> According to an agronomist who has studied the effects of CBM water on native rangelands in the Powder River Basin, some of the most productive grazing sites are irrevocably lost when native upland vegetation is replaced as a result of impacts from CBM produced water by salt-tolerant vegetation that is unpalatable to cattle.<sup>20</sup> Such virtually irreversible effects on the livelihood of ranchers and farmers who have inhabited these areas for generations cry out for more preventative measures – such as produced water re-injection or treatment.

Comprehensive reclamation planning and adequate financial assurance could lead to the use of less environmentally destructive practices. Wyoming has recognized the unique problems and impacts of managing CBM produced water and has recently approved new guidance that will require all new on-channel CBM reservoirs to be bonded by the BLM or state’s Department of Environmental Quality (“DEQ”), and that the bonds must be based upon a professional engineer’s estimate. While this guidance is clearly a step in the right direction, this piecemeal approach is inferior to a comprehensive approach requiring site-specific reclamation plans that identify all impacts to surface lands and other resources, and financial assurance that covers the full cost of performing all reclamation tasks.

The broad range of impacts from CBM development are not merely anecdotal. Indeed, BLM has acknowledged many of these adverse effects, including impacts on coal seam aquifers and overlying aquifers,<sup>21</sup> and the effect of CBM dewatering on recharge rates and the hydraulic connections among aquifers.<sup>22</sup> Based upon data provided by BLM in its FEIS for the Montana

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<sup>18</sup> Decl. of John Heyneman, attached as Exh. 5, Western Organization of Resource Council’s Brief in Support of Motion for Summary Judgment, *Western Organization of Resource Councils, et al., v. Clarke, et al.* 5 No. CV 03-70-BLG RWA (D. MT).

<sup>19</sup> Decl. of Nancy Sorenson ¶ 14.

<sup>20</sup> See Decl. of Larry C. Munn, attached as Exh. 9, Western Organization of Resource Council’s Brief in Support of Motion for Summary Judgment, *Western Organization of Resource Councils, et al., v. Clarke, et al.* (Decl. of Larry C. Munn) 3 No. CV 03-70-BLG RWA (D. MT) (“...much of CBM product water is too saline and/or sodic to be used for irrigation and substantial damage to the crop fields and rangeland growing sites. These negative effects begin with the initial application of saline and/or sodic water, building over time, and the time scale for reversal may take centuries. Because of the dry climate and clayey soils of the central Powder River Basin, these impacts are virtually irreversible once the CBM product water has damaged rangeland soils and native plants.”)

<sup>21</sup> See BLM, *Montana Statewide Final Oil and Gas Environmental Impact Statement and Amendment of the Powder River and Billings Resource Management Plan (MT FEIS)* 4-61 - 4-62 (January 2003), available at <http://www.mt.blm.gov/mcfo/cbm/eis/index.html>.

<sup>22</sup> See *WY FEIS* 3-5.

portion of the Powder River Basin, approximately 3,500,000 tons of salt would be deposited on the surface landscape by 2017.<sup>23</sup>

CBM production and other forms of oil and gas development create many additional adverse environmental impacts in addition to those related to dewatering described above. These include the construction of roads, drill pads, and related facilities; noise from pumps, compressors, and traffic; and air pollution from drilling equipment and motor vehicles.<sup>24</sup> Scott Crockett, a Powder River Basin rancher described the effects of oil and gas development on his land as follows:

“In the past there have been several oil wells drilled, developed and abandoned on my property...There are numerous sites of abandoned oil wells, pipe (including above ground), pumping equipment, tank batteries, dilapidated buildings, exposed pipelines, oil leaks (resulting in possibly contaminated soil), erosion, and generally, debris scattered throughout. Additionally, there is a water injection site with abandoned equipment which includes a large diesel engine, broken windows, doors, glass and debris all left on my surface by Federal lessees...Pipe casings are most probably eroding and could result in oil seeping into the ground as well as the contamination of ground and/or surface water...Roads to the sites have not been reclaimed and are now severely eroded...Open pits have not been reclaimed and old fencing is in disrepair. I have found my cattle stranded behind these fences with no food or water...All of these conditions pose a potentially dangerous situation for the environment, my family, and my cattle ranching operations now and in the future.”<sup>25</sup>

One of the most detrimental effects of oil and gas development is the spread of noxious and nonnative weeds.<sup>26</sup> According to recent inspections conducted by BLM in the Powder River Basin, weeds account for 31.6% of the environmental problems found during interim reclamation and seeding (or lack of viable seeding) for 40.2% of all problems.<sup>27</sup> This means that a total of over 70% of all reclamation problems identified by BLM pertain to weeding and revegetation. A recent study by Colorado State University found the following related problems:

“Surface disturbance associated with CBM development, such as roads and pipelines, increased non-native species richness and almost doubled the proportion of non-native species cover. Discharge sites had a greater non-

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<sup>23</sup> See *MT FEIS*; see also Decl. of Larry C. Munn at 9 (calculating 3,500,000 tons of salt would be deposited on the surface landscape by 2017 based upon numbers included in the FEIS).

<sup>24</sup> Gary Bryner, *Coalbed Methane Development in the Intermountain West* 16 Natural Resources Law Center, University of Colorado School of Law (July 2002), available at [http://www.colorado.edu/law/centers/nrlc/publications/CBM\\_Primer.pdf](http://www.colorado.edu/law/centers/nrlc/publications/CBM_Primer.pdf) (last visited June 6, 2005).

<sup>25</sup> Decl. of Scott Crockett ¶¶ 3-8.

<sup>26</sup> See Decl. of Robert L. Elderkin ¶¶ 7-8.

<sup>27</sup> BLM, Buffalo Field Office, *BLM's Surface Compliance Program*.

native cover and proportion of cover than control sites, nearly twice the number of non-native species, and almost four times the soil salinity.”<sup>28</sup>

These detrimental impacts are particularly difficult for split estate landowners who face development on their properties, as well as downstream landowners.

The adverse economic and environmental effects of inadequate bonding have already begun to manifest themselves. For example, a bankrupt Gillette oil company left the state of Wyoming and the Federal government with only \$250,000 in bonds to pay for an estimated \$4 million in reclamation costs on 120 abandoned wells in northern Campbell County, WY.<sup>29</sup> In another example, the Gunnison Energy Corporation plans to drill 400-500 CBM wells in Delta County, CO with only a \$25,000 statewide bond.<sup>30</sup> That works out to a mere \$50-62.50 per well. According to a 2004 analysis of BLM records carried out by the Western Organization of Resource Councils:

“There are approximately 12,000 shut-in and temporarily abandoned oil and gas wells on lands under the agency’s supervision. One BLM estimate puts the cost of reclaiming 90 abandoned oil and gas wells at \$1.7 million, or about \$19,000 per well. On two occasions the BLM has spent \$38,000 plugging one abandoned well and reclaiming the site, even though the posted bond was only for \$25,000. Therefore, the total cost of reclaiming 12,000 abandoned wells could range from \$228-\$456 million, a significant portion of which could come out of taxpayer pockets.”<sup>31</sup>

A recent study by the Western Organization of Resource Councils evaluated a number of current oil and gas projects to determine whether the financial assurance provided by the operators/owners/lessees was adequate.<sup>32</sup> The report found, *inter alia*, that “[s]hortfalls of actual financial assurance range from \$120,000 to \$6.8 million, with the smaller shortfalls typical to smaller operations and the larger shortfalls typical to those operations with a larger number of wells.”<sup>33</sup> For example, the Fidelity Tongue River CBM project in Montana is projected to cost

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<sup>28</sup> Erin Bergquist et al., *Invasive Species and Coal Bed Methane Development in the Powder River Basin, Wyoming* 1 (Jan. 14, 2004).

<sup>29</sup> Western Organization of Resource Councils, *The Need for Stronger Federal Oil and Gas Bonding Requirements 2* (January 2004), available at <http://www.worc.org/pdfs/energy-fs-bonding.pdf>; see also, Dustin Bleizeffer, *Well Bonds Not Enough*, Casper Star-Tribune (Sept. 7, 2001).

<sup>30</sup> Russell Smyth, *Residents Drill Energy Company Officials Over Methane Well Proposal A1* Montrose Daily Press (May 7, 2002).

<sup>31</sup> Western Organization of Resource Councils, *The Need for Stronger Federal Oil and Gas Bonding Requirements 2* (January 2004), available at <http://www.worc.org/pdfs/energy-fs-bonding.pdf>.

<sup>32</sup> Western Organization of Resource Councils, *Filling the Gaps: How to Improve Oil and Gas Reclamation and Reduce Taxpayer Liability* (August 2005), available at <http://www.worc.org/pdfs/Filling%20the%20Gaps.pdf>

<sup>33</sup> *Id.* at 11.

\$7,266,761 to reclaim but only \$420,000, or 5.7%, is covered by financial assurance obligations.<sup>34</sup>

## **B. Current Bonding Regulations Fail to Provide the Financial Assurance Required by Law.**

The Mineral Leasing Act requires that BLM “shall . . . establish such standards as may be necessary to ensure that an adequate bond, surety, or other financial arrangement will be established prior to the commencement of surface disturbing activities on any lease.”<sup>35</sup> The bond or other financial assurance instrument must be adequate “to ensure the complete and timely reclamation of the lease tract, and the restoration of any lands or surface waters adversely affected by lease operations after the abandonment or cessation of oil and gas operations on the lease.”<sup>36</sup> Current bonding regulations require lessees, sublessees, or operators to submit a surety or personal bond prior to commencement of surface disturbing activities.<sup>37</sup> The minimum bond amounts are, alternatively: \$10,000 per lease; \$25,000 covering all of a company’s leases statewide; or \$150,000 covering all of a company’s leases nationwide.<sup>38</sup> These amounts have not changed since 1960.<sup>39</sup> Adjusted for inflation, the same bonds today would amount to \$67,128 (lease), \$167,821 (statewide), and \$1,006,926 (nationwide).<sup>40</sup>

The bonding regulations provide BLM officers with the discretionary authority to impose higher bond amounts on a case-by-case basis, but the agency rarely uses its authority to do so.<sup>41</sup> In particular, a “unit operator’s” bond may be used in lieu of, or in addition to, a lease, statewide, or nationwide bond – the amount of which is left to the discretion of an “authorized officer” of BLM.<sup>42</sup> BLM also may increase the amount of a bond if an applicant for a permit to drill has

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<sup>34</sup> *Id.* at 6.

<sup>35</sup> 30 U.S.C. § 226(g) (2006)

<sup>36</sup> *Id.*; *see also* 53 Fed. Reg. 22820 (1988) (explaining that BLM must “ensure that any surface disturbing activities requiring reclamation will be bonded”); *See*, U.S. DOI, *Department of the Solicitor Report of July 19, 2004* 1 43 Fed. Reg. 595 (January 2004) (explaining that the restoration of any lands or surface waters adversely affected by off-lease operations that serve operations on the leasehold must also be accounted for in determining the adequacy of a bond, including non-federal lands).

<sup>37</sup> 43 C.F.R. § 3104.1(a) (“The bond is conditioned upon compliance with all of the terms and conditions of the entire leasehold covered by the bond.”).

<sup>38</sup> 43 C.F.R. §§ 3104.2, 3104.3.

<sup>39</sup> *Solicitor Report of July 19, 2004* at 15.

<sup>40</sup> Calculated using an annual inflation rate based on the U.S. Bureau of Labor Statistics’ Consumer Price Index.

<sup>41</sup> 43 C.F.R. § 3104.1 (“The bond amounts shall not be less than the minimum amounts described in this subpart in order to ensure compliance with the act, including complete and timely plugging of well(s), reclamation of the lease area(s), and the restoration of any lands or surface waters adversely affected by lease operations after the abandonment or cessation of oil and gas operations on the lease(s) in accordance with, but not limited to, the standards and requirements set forth in Sec. 3162.3 and 3162.5 of this title and orders issued by the authorized officer.”).

<sup>42</sup> 43 C.F.R. § 3104.4.

caused BLM to make a demand on a previous bond within five years, or “whenever it is determined that the operator poses a risk due to factors, including, but not limited to, a history of previous violations, a notice from the Service that there are uncollected royalties due, or the total cost of plugging existing wells and reclaiming lands exceed the present bond amount based on estimates determined by the authorized officer.”<sup>43</sup>

Unfortunately, the lack of criteria to identify at-risk leases and reclamation standards by which site-specific reclamation plans can be developed, along with staff and resource limitations at the Bureau, have limited the instances in which BLM officials have used their discretionary authority to increase bonds. For example, an audit by the Inspector General of the Interior Department found, among other things, that:

“field offices did not recommend individual bond increases because they believed that they did not have specific criteria to evaluate and identify at-risk leases and that management would not support their recommendations; and [that] Bureau management did not require an analysis of bond adequacy as a condition of approving lease assignments.”<sup>44</sup>

The current low and outdated minimum bond amounts are wholly inadequate to ensure that the cost of well plugging, site reclamation, and any associated environmental degradation are borne by developers rather than taxpayers.<sup>45</sup> For example, over the past five years BLM has spent an average of \$13,066 per well to clean up where operators defaulted on their bonds, and estimates the cost of capping and restoring the land for each well to be between \$2,500 and \$75,000.<sup>46</sup> A mere \$10,000 lease bond would not even cover the average cost of clean up for one well, not to mention hundreds of wells that could be drilled on an individual lease. A \$25,000 statewide bond would fail to cover the average cost of cleanup for two or more wells across the state. BLM acknowledged the inadequacy of current bond minimums over 20 years ago when it proposed increasing lease bonds from \$10,000 to \$25,000, statewide bonds from \$25,000 to \$150,000, and nationwide bonds from \$150,000 to \$500,000.<sup>47</sup> The agency explained at the time that “[t]he increases... would make the bonds commensurate with current restoration costs.”<sup>48</sup> The proposed increases reflected restoration costs in 1985.

<sup>43</sup> 43 C.F.R. § 3104.5(a) (emphasis added).

<sup>44</sup> *Solicitor Report July 19, 2004* at 15.

<sup>45</sup> See Decl. of James R. Kuipers ¶¶ 6-7.

<sup>46</sup> David Pace, *Taxpayers Could be on the Hook for Oil and Gas Well Cleanup*, Salt Lake Tribune (December 28, 2004). The Office of Fluid Minerals in the BLM estimates the cost of plugging and rehabilitating abandoned wells at from \$2415 to \$75,000 each, and the costs of reclaiming the associated well sites vary from \$200 to \$5000. The Wyoming Oil and Gas Conservation Commission estimates the average cost for reclaiming a CBM well is between \$2,500 and \$75,000 per well. Does not include reclamation of roads, compressor stations, and produced water contaminant ponds, but only plugging and restoring the site around the well.

<sup>47</sup> 50 Fed. Reg. 18614 (May 1, 1985).

<sup>48</sup> 50 Fed. Reg. 18614, 18615 (May 1, 1985).

In 1996, the Solicitor General of the Department of the Interior (“DOI”) found that “the Bureau’s minimum bond requirements were not sufficient to cover the Government in case of operator default, and the Bureau routinely approved lease assignments without considering bond adequacy.”<sup>49</sup> The report recommended, among other things, that BLM increase bond minimums, require an analysis of bond adequacy as a condition of approving lease assignments, and develop specific criteria for field offices to evaluate and identify at-risk leases and encourage that field offices use those criteria to recommend individual bond increases where appropriate.<sup>50</sup> Although the BLM concurred with these recommendations and even committed at the time to raising bond minimums, the agency has yet to act nearly nine years later.<sup>51</sup>

In 1998, BLM proposed a modest increase in lease and statewide bonds by doubling the existing \$10,000 lease bond and tripling the \$25,000 statewide bond.<sup>52</sup> BLM explained its rationale as follows:

“Increased bonds or fees are necessary due to the significant unfunded liability that has fallen and continues to fall on the public in general and BLM and other land management agencies in particular. This liability is in the form of orphan oil and gas wells. Unplugged or inadequately plugged wells and unreclaimed sites on Federal lands with no responsible person or company found are left to the government to clean up. Even if a bond is available for the well, it is frequently insufficient to cover the costs of plugging and reclamation. Furthermore, one bond may represent many wells. The Bureau Performance Review of the Oil and Gas Program included a review of bonding and unfunded liability. The March 1995 report concluded that the public was assuming too much of the risk from orphan wells. The existing regulations provided the authority to increase bonds, but did not provide guidelines on how much to increase the bond requirements.”<sup>53</sup>

More recently, Kathleen Clarke, director of BLM, reiterated the call for updating current bonding regulations to ensure that oil and gas operations are financially covered for the cost of reclamation.<sup>54</sup> In 2003, then-Assistant Secretary of the Interior Rebecca Watson explained that “Secretary Gale Norton has a firm view that companies are responsible for land reclamation, not individual taxpayers,” and that “[w]e have to ensure that taxpayers don’t pick up the tab if there’s any impact on public lands due to private activity.”<sup>55</sup> These statements by BLM Director

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<sup>49</sup> Dept. of Interior, *Audit Report: Inspection and Enforcement Program and Selected Related Activities, Bureau of Land Management* Report No. 96-I-1267 (Sept. 1996)

<sup>50</sup> *Solicitor Report of July 19, 2004* at 17.

<sup>51</sup> Memorandum from Deputy Director, BLM, to Assistant Inspector General for Audits, DOI, *Response to Draft Audit Report on the Inspection and Enforcement Program and Selected Related Activities* (June 1996) (Assignment No. C-IN-MOA-005-94 (B)).

<sup>52</sup> 63 Fed. Reg. 66840, 66842 (Dec. 3, 1998).

<sup>53</sup> 63 Fed. Reg. 66840, 66868-66869 (Dec. 3, 1998).

<sup>54</sup> *BLM Asked to Ensure Land is Protected*, Gillette News Record (April 25, 2002).

<sup>55</sup> Gargi Chakrabarty, *BLM Boosts Bonds for Oil, Gas Wells: Fees Held Against Future Cleanup Costs to Double or Triple*, Rocky Mountain News (Oct. 28, 2003).

Clarke and Assistant Secretary Watson are not only based on sound economic policy, but are also required by law. However, despite this overwhelming evidence that new bonding regulations are needed, including from within the highest ranks of BLM and DOI, the Administration suddenly reversed course in September of 2004 by declaring that no new regulations are needed.<sup>56</sup>

The outdated and insufficient nature and amount of current bonding regulations demand a new approach. This petition recommends establishing a \$20,000 per well bond in lieu of blanket bonds. Alternatively, operators may choose to post a site-specific reclamation bond, developed and approved by an independent engineer, and accurately reflecting the cost of reclaiming the site in question. The per-well bond amount is designed to cover all foreseeable reclamation costs and, even more importantly, to provide an incentive for operators to develop detailed, specific, and realistic reclamation plans that accurately estimate the true costs of reclamation.

### **C. Lax Environmental Inspection and Enforcement Increases the Need for Adequate Bonding.**

Lax environmental inspection and enforcement further underlies the need for adequate bonding. A recent report by the Western Organization of Resource Councils found BLM's inspection and enforcement programs to be severely lacking.<sup>57</sup> The report found that:

- Although the six western BLM Field Offices surveyed were responsible for 79% of active oil and gas wells on BLM lands nationwide in 2003, these six offices employed only 26% of all BLM inspectors at that time.
- Based on 2003 staffing and inspection levels, state agencies conduct enough inspections to inspect active wells once every 1–3 years on average, while the six BLM Field Offices surveyed conduct enough inspections to inspect active wells once every 2-10 years on average and inspect active wells for environmental compliance once every 4-59 years.
- Neither the state oil and gas agencies nor the BLM impose many fines, nor do they issue many orders to plug wells, cease and desist operations, or forfeit bonds. While this could indicate good behavior on the part of operators, there is evidence to suggest some agencies lack the will to enforce the law.
- Of the 22 state and federal agencies surveyed for this report, only two reported tracking citizen complaints and agency responses to those complaints.

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<sup>56</sup> David Pace, *Bonds Posted for Oil, Gas Cleanup Insufficient to Cover All Expenses*, Billings Gazette, Dec. 27, 2004 (quoting a September 30, 2004 letter by BLM Director Kathleen Clarke and Assistant Secretary of the Interior Rebecca Watson: "The BLM has reviewed its policies and procedures and believes that the existing regulations . . . already provide the needed authority to increase bonds when the BLM determines that operators pose a risk on federal oil and gas leases").

<sup>57</sup> Western Organization of Resource Councils, *Law and Order in the Oil and Gas Fields: A Review of Inspection of and Enforcement Programs in Five Western States*, at i (Nov. 2004), available at [http://www.worc.org/issues/art\\_issues/LAW&ORDER.html](http://www.worc.org/issues/art_issues/LAW&ORDER.html).

A recent GAO report confirmed that environmental inspection and enforcement has suffered in the face of an enormous increase in oil and gas production. For example, the six Western BLM field offices that are responsible for about 95% of the nation's drilling permits have had to devote increasing time to processing permits, "leaving less time to mitigate the environmental impacts" of such development.<sup>58</sup> Strong financial assurance requirements provide an incentive for oil and gas operators to do the job right, which makes the agency's job of inspection and enforcement that much easier. And, if the operators don't do the job right, financial assurance provides an important safety net so that landowners and taxpayers don't get stuck with the clean-up costs.

#### **D. Updated Reclamation and Bonding Requirements Make Economic and Environmental Sense.**

Requiring comprehensive reclamation planning and correlating financial assurance obligations to site-specific plans would reap environmental benefits by internalizing the costs of harm to the environment, thus incentivizing more environmentally-friendly development and reclamation strategies and techniques.<sup>59</sup> A recent report from the Congressional Budget Office explained:

"Having the public bear risks in support of reclamation implies that some costs of the production of mined resources and oil and gas are not incorporated in their market prices. However, prices that incorporate the full costs of production contribute to the efficient allocation of society's resources."<sup>60</sup>

Financial assurance requirements such as bonds serve many beneficial purposes, such as improving cost recovery, deterring abandonment and environmentally wasteful practices, and encouraging the enforcement of environmental rules and regulations.<sup>61</sup> "Assurance is desirable in practice because it achieves its goals at relatively low cost and without significant commercial disruption, contrary to fearful rhetoric that typically accompanies the imposition of new assurance requirements."<sup>62</sup>

BLM has acknowledged that increased bonding "represents a relatively small cost of doing business."<sup>63</sup> For example, it takes approximately \$65,000 to establish a producing well in

<sup>58</sup> General Accounting Office, *Increased Permitting Activity Has Lessened BLM's Ability to Meet Its Environmental Protection Responsibilities* 5 (GAO-05-418) (June 2005).

<sup>59</sup> See Decl. of James R. Kuipers ¶¶ 7-10.

<sup>60</sup> Congressional Budget Office, *Bonding for Reclaiming Federal Lands* viii (October 2003), available at <http://www.cbo.gov/showdoc.cfm?index=4688&sequence=0>.

<sup>61</sup> James Boyd, *Financial Responsibility for Environmental Obligations: Are Bonding and Assurance Rules Fulfilling Their Promises?*, Resources for the Future (August 2001), available at <http://www.rff.org/Documents/RFF-DP-01-42.pdf>.

<sup>62</sup> *Id.* at 66.

<sup>63</sup> 63 Fed. Reg. 66840, 66869-66870 (Dec. 3, 1998):

Montana; depending on gas prices, an average well brings in \$600,000 to \$1.2 million over its productive life.<sup>64</sup> A typical surety bond costs between 0.25% to 2% of the amount of the bond per year.<sup>65</sup> Given this economic reality, BLM cannot argue convincingly that operators cannot afford to financially assure the environmental effects of the very projects from which they are reaping huge economic benefits.<sup>66</sup> This is especially true as Western natural gas producers have reported record profits over the past few years. For example, Western Gas Resources reported an increase in net income from \$51 million to \$119 million from 2002 to 2004 and a record \$35.1 million in the fourth quarter of 2004 alone.<sup>67</sup>

### III. ACTIONS REQUESTED.

We, the undersigned organizations, request that DOI take the following remedial actions:

- 1) Require Geographic Area Development Plans Containing Comprehensive Reclamation Plans. Geographic Area Development Plans – which cover a proposed or defined oil and gas field or other limited geographic area within a field – must be analyzed through a “geographic area NEPA” document. APDs not adequately addressed in the document would be subject to further NEPA analysis. BLM has recognized that comprehensive geographic area planning results in “process improvements and better management of the resources entrusted to our care.”<sup>68</sup> Currently, such planning is recommended by DOI, but not required, and not standardized throughout the country. This sort of umbrella analysis takes a broader scale, yet site-specific look at a defined area and development proposal and/or likely future development scenario, and a comprehensive approach to reclamation planning and financial assurance. It also ensures the public will have an opportunity to review and comment on reclamation plans.
- 2) Specify Reclamation Plan Components and Performance Standards. As regulators admit, and those who use public lands for grazing, recreation, and other purposes already know,

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“The net impact to industry is negligible. The minor increased cost is more than offset by the gains to the public by reducing the risk of creating new orphan wells. The costs to government are also reduced by having better compliance by industry. This also represents a net gain for the environment. Overall, increased bonding represents a net positive.”

<sup>64</sup> Northern Plains Resource Council, *Doing It Right: A Blueprint for Responsible Coal Bed Methane Development in Montana* 11 (October 2001), available at [http://www.northernplains.org/files/Doing\\_It\\_Right.pdf](http://www.northernplains.org/files/Doing_It_Right.pdf).

<sup>65</sup> WORC, *Filling the Gaps* at 29.

<sup>66</sup> David Pace, *Bonds Posted for Oil, Gas Cleanup Insufficient to Cover All Expenses* Billings Gazette (Dec. 27, 2004) (quoting Bob Anderson, BLM’s Deputy Assistant Director for Minerals explaining that any increases in bonding requirements would place an undue burden on the oil and gas industry).

<sup>67</sup> Western Gas Resources, Inc., *Annual Report 2004* 2 (2005), available at <http://www.westerngas.com/financial/2004/annual.html>.

<sup>68</sup> BLM, *Instruction Memorandum No. 2003-152* (April 14, 2003).

existing reclamation plans lack detail in most cases, and are nonexistent in many others. In addition, current federal standards for reclamation plans are inadequate and often fail to prevent impacts to land and water resources and loss of use to other public land users and private landowners. This recommendation will address both of these deficiencies.

- 3) Increase and Simplify Standard Bond Amounts to Ensure Adequate Financial Assurance. Current lease, statewide, and nationwide bond amounts are inadequate. Replace current bonds with an across-the-board \$20,000 per-well bond. Such bonds should be sufficient in most cases to cover the costs of well plugging, site restoration around the well, as well as the costs of reclaiming roads, compressor station sites, produced water containment ponds, and all other associated facilities and impacts for which a bond is not otherwise provided. This recommendation is consistent with the State of North Dakota's recent decision to increase its per well bond to \$20,000, and with California's per well bond amounts, which range from \$15,000 to \$30,000 depending on the well's depth.
- 4) Site-Specific Reclamation Bond Alternative. Provide lessees, operating rights owners (sublessees), or operators with the option of posting a site-specific reclamation bond in lieu of the standard \$20,000 per-well bond. The amount of the site-specific reclamation bond would be determined by a professional engineer as part of the reclamation plan and would be based on an estimate of the planned reclamation, as well as an eighteen percent administrative fee to cover the cost of BLM having to administer reclamation if the operator is unable, unwilling, or incapable of doing so.
- 5) Annual Review of Reclamation Plans and Site-Specific Bonds.
- 6) Inspections and Monitoring. Require annual inspections to ensure compliance.
- 7) Increased Penalties for Noncompliance. Double the current penalty amounts from \$250 to \$500 per day for minor violations and from \$500 to \$1,000 per day for major violations, and make such penalties mandatory. Remove caps on amount of penalties that can accrue.

#### **IV. PROPOSED REGULATIONS.**

(Note: Deleted Text in ~~Strikethrough~~; Additional Text is Underlined.)

##### DEFINITION OF RECLAMATION:

INSERT AT 43 C.F.R. § 3160.0-5: DEFINITIONS.

Reclamation means recontouring, backfilling, subsidence stabilization, water control, grading, resoiling, planting, revegetation, remediation of lands affected with high amounts of alkali from the CBM water discharged to the surface, and other work conducted on lands affected by oil and gas operations under a plan approved by BLM. The goal of reclamation is to return all disturbance to its original contours and reestablish native vegetation to make those lands capable of supporting the uses that they were capable of supporting prior to any oil and gas operations.

Interim Reclamation means all reclamation activities undertaken prior to the cessation of oil and gas production that occur on all disturbed areas outside of the deadman not needed for active support of production operations. Interim reclamation is intended to minimize the environmental impacts of development and the cost and complexity of final reclamation. Examples of interim reclamation include, but are not limited to: recontouring of the disturbed area to the maximum extent possible; the reclamation and revegetation of portions of well pads and surrounding construction disturbances as wells are completed; and revegetation and erosion control of ground surfaces after pipelines and power lines have been buried. Interim reclamation will begin the moment surface construction ceases on all surfaces except those areas that will be used on a daily basis, such as roads. Interim reclamation must establish successful re-seeding and the elimination of invasive and noxious weeds within three months after initial disturbance. Success of reclamation will be determined by the results of vegetative monitoring using quantitative vegetative monitoring techniques given in the GADP. Final interim reclamation will be completed within three months of drilling completion.

Final Reclamation means all reclamation activities undertaken following the cessation of oil and gas production. Final reclamation is not complete until the land, water, and other affected natural resources have been restored to their pre-disturbance condition and are capable of supporting the uses that they were capable of supporting prior to any oil and gas operations. Final reclamation must be completed within two years after completion or abandonment of the oil and gas operation, unless the reclamation plan provides for a longer period. Success of reclamation will be determined by the results of vegetative monitoring using quantitative vegetative monitoring techniques given in the GADP. Final reclamation periods greater than two years shall only be approved to avoid additional environmental damage.

#### GEOGRAPHIC AREA DEVELOPMENT PLAN/RECLAMATION PLAN:

AMEND TO 43 C.F.R. § 3162.3-1: DRILLING APPLICATIONS AND PLANS.

(a) The operator shall submit to the authorized officer a Geographic Area Development Plan, which shall be analyzed by the BLM through a “geographic area NEPA” document. This plan will detail the proposed plan of operations for the geographical area in question. It will contain, at a minimum, the following: the proposed down hole well spacing; the geologic data to support the down hole well spacing for review by Agency contractors or experts in directional drilling; the proposed surface well pad locations, including necessary environmental data required by the Agency; proposed road, pipeline, and utility locations; proposed well pad layout, including well head locations and ancillary surface facilities needed during the drilling and production phases; a reclamation plan containing information required by paragraph (b) of this section and appropriate orders and notices. Any changes in the proposed plan of operation contained in the GADP will be submitted to the authorized officer for approval. Changes in operation on the drill pad can be done with Sundry Notices as long as no additional surface disturbance is needed. Changes that require surface disturbance not anticipated or planned for in the existing GADP shall be submitted in writing as a formal amendment to the GADP and subject to NEPA review.

(ab) The reclamation plan shall contain information specified in applicable notices and orders, including, but not limited to, the following components:

(1) *Pre-Development Land Use.* Documentation of the condition, uses, and productivity of the land covered by the lease prior to any oil and gas development, including: the uses existing at the time of the application, and if the land has a history of previous oil and gas development, the uses which preceded any oil and gas development, such as wildlife habitat, agriculture, and grazing; and the capability of the land prior to any oil and gas development to support the various uses. Pre-development soil characteristics of the A, B, and C horizons, foundation characteristics, topography, and vegetative cover must be documented for use in revegetation.

(2) *Reclamation Tasks.* The reclamation plan shall quantify and describe the specific tasks required for the successful reclamation of all facilities, equipment, and surface disturbing features, including, but not limited to: wells, well pads, pits, roads, pipelines, and other facilities included in the surface use plan of operations. Maps and other visual representations of the facilities, equipment, and surface disturbing features shall be included. The maps shall identify each feature and provide details such as acreage, volume, tonnage, slope angles, scale, contours, and other dimensions needed to quantify reclamation tasks.

(3) *Revegetation Tasks.* The reclamation plan shall contain a subsection which describes in detail how revegetation will occur. This will include, but not be limited to: methods for erosion control necessary for meeting the State and Federal water quality control regulations and standards; agronomic practices necessary to mitigate or control soil components which may be detrimental to revegetation, such as high salt content; objectives by which revegetation success will be measured, including, but not limited to, percentage of herbaceous ground cover, percentage of vegetative composition, vegetative density, and species diversity; a list of vegetative species to be used in revegetation that are compatible with surrounding undisturbed vegetation in terms of palatability and structure; methods of seeding all disturbed areas; and a methodology by which the operator will measure the parameters for successful revegetation consistent with the objectives and requirements of this section.

(4) *Performance Standards.* Reclamation plans shall include quantifiable and measurable standards for every element of the reclamation plan including, but not limited to: well plugging; well pad reclamation; pit and/or pond reclamation; topsoil and subsoil restoration; stability, backfilling, and grading; revegetation and landscaping; pipeline and flowline reclamation; water well conversion; hazardous substances waste disposal; demolition and solid waste disposal; post-development land use; monitoring; safety; and operations and maintenance. The performance standards shall, at a minimum, include the following:

(i) *Soil Salvage and Use.* All soil up to a minimum thickness of two feet, if available, shall be salvaged, stored and used solely for reclamation. Soil horizons shall be separated.

(ii) Well Plugging. All wells shall be plugged to prevent contamination of groundwater or other resources, including solid grouting in all areas of well permeation, surface penetration, and high-value groundwater.

(iii) Recontouring. Areas shall be regraded to their original contours consistent with the surrounding topography.

(iv) Revegetation. Revegetation shall employ native species or species consistent with the surrounding area. Mulch, fertilizer, and other enhancements shall be used to promote revegetation. Revegetation shall achieve the vegetative density and species diversity that is consistent with surrounding areas within five years of final reclamation being completed.

(v) Weed Control. Weed control shall be included as a part of the reclamation plan. Non-chemical means should be employed, if possible. Final reclamation shall eliminate, to the extent practicable, noxious and invasive weeds through intergrated management plans and biocontrol.

(vi) Roads. All unnecessary and non-permanent roads shall be reclaimed to original contours and revegetated.

(4) Timeline and Benchmarks. The plan shall include clear objectives with quantified and/or measurable benchmarks and a specific timetable for restoring the affected areas to a condition capable of supporting the uses it could support prior to oil and gas development activities. The timetable shall be approved by the authorized officer and shall include both interim and final reclamation benchmarks and objectives.

(5) Cost. A detailed estimate, conducted by a professional engineer, of the cost of reclamation of the proposed operations shall be included if the operator chooses to post a site-specific bond in lieu of the standard per well bond required under section 3104 of this chapter. The detailed cost estimates must include supporting calculations and be approved by the authorized officer.

(6) Annual Review. The authorized officer shall review reclamation plans at least once annually to ensure the adequacy of such plans for ensuring successful reclamation and ensuring that all cost estimates are accurate and up-to-date.

(ac) Each well shall be drilled in conformity with an acceptable down hole well-spacing program. The surface drilling location will be at a surveyed well location approved or prescribed by the authorized officer after appropriate environmental and technical reviews (see § 3162.5-1 of this title). An acceptable down hole well-spacing program may be either (1) one which conforms with a spacing order or field rule issued by a State Commission or Board and accepted by the authorized officer, or (2) one which is located on a lease committed to a communitized or unitized tract at a location approved by the authorized officer, or (3) any other program

established by the authorized officer. The surface locations may be at a surface spacing order designated by the State Commission or by the authorized officer.

(bd) Any well drilled on restricted Indian land shall be subject to the location restrictions specified in the lease and/or Title 25 of the Code of Federal Regulations.

(ee) The operator shall submit to the authorized officer for approval an Application for Permit to Drill for each well. No drilling operations, nor surface disturbance preliminary thereto, may be commenced prior to the authorized officer's approval of the permit. Each Application for Permit to Drill shall be consistent with a previously-approved GAP.

(ef) The Application for Permit to Drill process shall be initiated at least 30 days before commencement of operations is desired. Prior to approval, the application shall be administratively and technically complete. A complete application consists of Form 3160-3 and the following attachments:

- (1) A drilling plan, which may already be on file, containing information required by paragraph (eg) of this section and appropriate orders and notices.
- (2) A surface use plan of operations containing information required by paragraph (fh) of this section and appropriate orders and notices.
- (3) Evidence of bond coverage as required by the Department of the Interior regulations, and
- (4) Such other information as may be required by applicable orders and notices.

(eg) Each drilling plan shall contain the information specified in applicable notices or orders, including a description of the drilling program, the surface and projected completion zone location, pertinent geologic data, expected hazards, and proposed mitigation measures to address such hazards. A drilling plan may be submitted for a single well or for several wells proposed to be drilled to the same zone within a field or area of geological and environmental similarity. A drilling plan may be modified from time to time as circumstances may warrant, with the approval of the authorized officer.

(fh) The surface use plan of operations shall contain information specified in applicable orders or notices, including the road and drillpad location, details of pad construction, methods for containment and disposal of waste material, ~~plans for reclamation of the surface~~, and other pertinent data as the authorized officer may require. A surface use plan of operations may be submitted for a single well or for several wells proposed to be drilled in an area of environmental similarity.

(gi) For Federal lands, upon receipt of the Application for Permit to Drill or Notice of Staking, the authorized officer shall post the following information for public inspection at least 30 days before action to approve the Application for Permit to Drill: the company/operator name; the well name/number; the well location described to the nearest quarter-quarter section (40 acres),

or similar land description in the case of lands described by metes and bounds, or maps showing the affected lands and the location of all tracts to be leased and of all leases already issued in the general area; and any substantial modifications to the lease terms. Where the inclusion of maps in such posting is not practicable, maps of the affected lands shall be made available to the public for review. This information also shall be provided promptly by the authorized officer to the appropriate office of the Federal surface management agency, for lands the surface of which is not under Bureau jurisdiction, requesting such agency to post the proposed action for public inspection for at least 30 days. The posting shall be in the office of the authorized officer and in the appropriate surface managing agency if other than the Bureau. The posting of an Application for Permit to Drill is for information purposes only and is not an appealable decision.

(h~~j~~) Upon initiation of the Application for Permit to Drill process, the authorized officer shall consult with the appropriate Federal surface management agency and with other interested parties as appropriate and shall take one of the following actions as soon as practical, but in no event later than 5 working days after the conclusion of the 30-day notice period for Federal lands, or within 30 days from receipt of the application for Indian lands:

- (1) Approve the application as submitted or with appropriate modifications or conditions;
- (2) Return the application and advise the applicant of the reasons for disapproval; or
- (3) Advise the applicant, either in writing or orally with subsequent written confirmation, of the reasons why final action will be delayed along with the date such final action can be expected.

The surface use plan of operations for National Forest System lands shall be approved by the Secretary of Agriculture or his/her representative prior to approval of the Application for Permit to Drill by the authorized officer. Appeals from the denial of approval of such surface use plan of operations shall be submitted to the Secretary of Agriculture.

(i~~k~~) Approval of the Application for Permit to Drill does not warrant or certify that the applicant holds legal or equitable title to the subject lease(s) which would entitle the applicant to conduct drilling operations.

AMEND 43 C.F.R. § 3162.3-2: SUBSEQUENT WELL OPERATIONS.

(a) A proposal for further well operations shall be submitted by the operator on Form 3160-5 for approval by the authorized officer prior to commencing operations to redrill, deepen, perform casing repairs, plug-back, alter casing, perform nonroutine fracturing jobs, recomplete in a different interval, perform water shut-off, commingling production between intervals and/or conversion to injection. If there is additional surface disturbance, the proposal shall include a surface use plan of operations. The GADP and accompanying reclamation plan shall be amended to be consistent with any additional surface disturbance. Any changes in the GADP and/or reclamation plan shall be subject to review pursuant to the National Environmental Policy Act. A subsequent report on these operations also will be filed on Form 3160-5. ~~The authorized~~

~~officer may prescribe that each proposal contain all or a portion of the information set forth in § 3162.3-1 of this title.~~

(b) Unless additional surface disturbance is involved and if the operations conform to the standard of prudent operating practice, prior approval is not required for routine fracturing or acidizing jobs, or recompletion in the same interval; however, a subsequent report on these operations must be filed on Form 3160-5.

(c) No prior approval or a subsequent report is required for well cleanout work, routine well maintenance, or bottom hole pressure surveys.

AMEND 43 C.F.R. § 3162.3-3: OTHER LEASE OPERATIONS.

Prior to commencing any operation on the leasehold which will result in additional surface disturbance, other than those authorized under § 3162.3-1 or § 3162.3-2 of this title, the operator shall submit a proposal on Form 3160-5 to the authorized officer for approval. The proposal shall include a surface use plan of operations. The GADP and accompanying reclamation plan shall be amended to be consistent with any additional surface disturbance. Any changes in the GADP and/or reclamation plan shall be subject to analysis and review under the National Environmental Policy Act.

INSPECTIONS/MONITORING:

AMEND 43 C.F.R. § 3161.3: INSPECTIONS AND FINAL ABANDONMENT.

~~(a) The authorized officer shall establish procedures to ensure that each Federal and Indian lease site which is producing or is expected to produce significant quantities of oil or gas in any year or which has a history of noncompliance with applicable provisions of law or regulations, lease terms, orders or directives shall be inspected at least once annually. Similarly, each lease site on non-Federal or non-Indian lands subject to a formal agreement such as a unit or communitization agreement which has been approved by the Department of the Interior and in which the United States or the Indian lessors share in production shall be inspected annually whenever any of the foregoing criteria are applicable.~~

(a) The authorized officer shall ensure that inspections of all oil and gas operations and reclamation operations are carried out at least once each year for the purpose of ensuring compliance with all applicable operations, geographic area development plans, reclamation plans, lease terms, and all applicable laws, regulations, and BLM Orders. For such purposes authorized personnel, without advance notice and upon presentation of appropriate credentials, shall have a right of entry to or upon any oil and gas operations and reclamation operations on Federal or Indian lease sites may at reasonable times, and without delay, have access to and copy any records, inspect any monitoring equipment or method of operation or reclamation pertaining to oil and gas operations or reclamation operations on Federal or Indian lands.

(b) In accomplishing the inspections, the authorized officer may utilize Bureau personnel, may enter into cooperative agreements with States or Indian Tribes, may delegate the inspection

authority to any State, or may contract with any non-Federal Government entities. Any cooperative agreement, delegation or contractual arrangement shall not be effective without concurrence of the Secretary and shall include applicable provisions of the Federal Oil and Gas Royalty Management Act.

(c) The inspections shall occur without prior notice to the lessee, operator, or their agents and/or employees except for necessary onsite meetings with the lessee, operator, or their agents and/or employees.

(d) Final abandonment will not be approved until the reclamation work required by the Geographical Area Development Plan, Reclamation Plan, APD, Notice of Intent to Abandon, or Subsequent Report to Plug and Abandon has been completed and the authorized officer has determined that the resultant reclamation and resource conditions have been successful. The operator is responsible for monitoring reclamation progress and taking all necessary actions to ensure success. The operator must file a Subsequent Report of Abandonment (SRA) following the plugging of a well. A Final Abandonment Notice (FAN) must be filed upon completion of reclamation operations, which documents that all of the reclamation tasks and performance standards included in the reclamation plan have been completed and that all benchmarks stated under 43 CFR 3162.3-1 have been satisfied. Upon receipt of the FAN, the authorized officer will inspect the site to determine whether reclamation has been successful.

#### NONCOMPLIANCE/VIOLATIONS/PENALTIES:

AMEND 43 C.F.R. § 3163.1: REMEDIES FOR ACTS OF NONCOMPLIANCE.

(a) Whenever an operating rights owner or operator fails or refuses to comply with the regulations in this part, the terms of any lease or Permit, or the requirements of any notice or order, the authorized officer shall notify the operating rights owner or operator, as appropriate, in writing of the violation or default. Such notice shall also set forth a reasonable abatement period:

(1) If the violation or default is not corrected within the time allowed, the authorized officer ~~may~~ shall subject the operating rights owner or operator, ~~as appropriate,~~ to an assessment of ~~not more than \$500~~ 1,000 per day for each day nonabatement continues where the violation or default is deemed a major violation;

(2) Where noncompliance involves a minor violation, the authorized officer ~~may~~ shall subject the operating rights owner or operator, ~~as appropriate,~~ to an assessment of ~~\$250~~ 500 for failure to abate the violation or correct the default within the time allowed;

(3) When necessary for compliance, or where operations have been commenced without approval, or where continued operations could result in immediate, substantial, and adverse impacts on public health and safety, the environment, production accountability, or royalty income, the authorized officer ~~may~~ shall immediately shut down operations. Immediate shut-in action shall be taken where operations are initiated and conducted without prior approval, or where continued operations could result in immediate,

substantial, and adverse impacts on public health and safety, the environment, production accountability, or royalty income. Shut-in actions for other situations may be taken only after due notice, in writing, has been given;

(4) When necessary for compliance, the authorized officer may enter upon a lease and perform, or have performed, at the sole risk and expense of the operator, operations that the operator fails to perform when directed in writing by the authorized officer. Appropriate charges shall include the actual cost of performance, plus an additional 25 percent of such amount to compensate the United States for administrative costs. The operator shall be provided with a 15-day notice ~~reasonable period of time~~ either to take corrective action or to show why the lease should not be entered;

(5) Continued noncompliance may subject the lease to cancellation and forfeiture under the bond. The operator shall be provided with a 30-day notice ~~reasonable period of time~~ either to take corrective action or to show why the lease should not be recommended for cancellation;

(6) Where actual loss or damage has occurred as a result of the operator's noncompliance, the actual amount of such loss or damage shall be charged to the operator.

(b) Certain instances of noncompliance are violations of such a serious nature as to warrant the imposition of immediate assessments upon discovery. Upon discovery the following violations shall result in immediate assessments, which may be retroactive, in the following specified amounts per violation:

(1) For failure to install blowout preventer or other equivalent well control equipment, as required by the approved drilling plan, \$5001,000 per day for each day that the violation existed, including days the violation existed prior to discovery, ~~not to exceed \$5,000~~;

(2) For drilling without approval or for causing surface disturbance on Federal or Indian surface preliminary to drilling without approval, \$5001,000 per day for each day that the violation existed, including days the violation existed prior to discovery, ~~not to exceed \$5,000~~;

(3) For failure to obtain approval of a plan for well abandonment prior to commencement of such operations, \$5001,000.

~~(c) Assessments under paragraph (a)(1) of this section shall not exceed \$1,000 per day, per operating rights owner or operator, per lease. Assessments under paragraph (a)(2) of this section shall not exceed a total of \$500 per operating rights owner or operator, per lease, per inspection.~~

~~(d)~~(c) Continued noncompliance shall subject the operating rights owner or operator, as appropriate, to penalties described in § 3163.2 of this title.

~~(e) On a case-by-case basis, the State Director may compromise or reduce assessments under this section. In compromising or reducing the amount of the assessment, the State Director shall state in the record the reasons for such determination.~~

FINANCIAL ASSURANCE:

AMEND 43 C.F.R. § 3104.1: BOND OBLIGATIONS.

(a) Prior to the commencement of surface disturbing activities related to drilling operations, the lessee, operating rights owner (sublessee), or operator shall submit a surety or a personal bond, conditioned upon compliance with all of the terms and conditions of the entire leasehold(s) covered by the bond, as described in this subpart. The bond amounts shall be not less than \$20,000 per well ~~the minimum amounts described in this subpart~~ in order to ensure compliance with the act, including complete and timely plugging of the well(s), reclamation of the lease area(s), and the restoration of any lands or surface waters adversely affected by lease operations after the abandonment or cessation of oil and gas operations on the lease(s) in accordance with, but not limited to, the standards and requirements set forth in §§ 3162.3 and 3162.5 of this title and orders issued by the authorized officer. In lieu of a \$20,000 per well bond, the lessee, operating rights owner (sublessee), or operator may submit a site-specific bond for an amount no less than the full costs of reclamation as estimated by a professional engineer in an approved reclamation plan pursuant to section 3162.3-1 of this title, plus an additional eighteen percent of such amount to compensate the United States for administrative costs. Parties submitting new Geographic Area Development Plans and APDs and Changes of Operator subsequent to the effective date of the final rule shall be required to meet the increased bond amounts. Existing bonds with no new activity will remain at their current bond amount for two years at which time the principal shall increase the bond amount to comply with this section. During this two-year period, BLM could request bond increases for other reasons.

(b) Surety bonds shall be issued by qualified surety companies approved by the Department of the Treasury (see Department of the Treasury Circular No. 570).

(c) Personal bonds shall be accompanied by:

- (1) Certificate of deposit issued by a financial institution, the deposits of which are federally insured, explicitly granting the Secretary full authority to demand immediate payment in case of default in the performance of the terms and conditions of the lease. The certificate shall explicitly indicate on its face that Secretarial approval is required prior to redemption of the certificate of deposit by any party;
- (2) Cashier's check;
- (3) Certified check;
- (4) Negotiable Treasury securities of the United States of a value equal to the amount specified in the bond. Negotiable Treasury securities shall be accompanied by a proper

conveyance to the Secretary of full authority to sell such securities in case of default in the performance of the terms and conditions of a lease; or

(5) Irrevocable letter of credit issued by a financial institution, the deposits of which are Federally insured, for a specific term, identifying the Secretary as sole payee with full authority to demand immediate payment in the case of default in the performance of the terms and conditions of a lease. Letters of credit shall be subject to the following conditions:

(i) The letter of credit shall be issued only by a financial institution organized or authorized to do business in the United States;

(ii) The letter of credit shall be irrevocable during its term. A letter of credit used as security for any lease upon which drilling has taken place and final approval of all abandonment has not been given, or as security for a statewide or nationwide lease bond, shall be forfeited and shall be collected by the authorized officer if not replaced by other suitable bond or letter of credit at least 30 days before its expiration date;

(iii) The letter of credit shall be payable to the Bureau of Land Management upon demand, in part or in full, upon receipt from the authorized officer of a notice of attachment stating the basis therefor, e.g., default in compliance with the lease terms and conditions or failure to file a replacement in accordance with paragraph (c)(5)(ii) of this section;

(iv) The initial expiration date of the letter of credit shall be at least 1 year following the date it is filed in the proper BLM office; and

(v) The letter of credit shall contain a provision for automatic renewal for periods of not less than 1 year in the absence of notice to the proper BLM office at least 90 days prior to the originally stated or any extended expiration date.

DELETE 43 C.F.R. § 3104.2: LEASE BOND.

~~A lease bond may be posted by a lessee, owner of operating rights (sublessee), or operator in an amount of not less than \$10,000 for each lease conditioned upon compliance with all of the terms of the lease. Where 2 or more principals have interests in different formations or portions of the lease, separate bonds may be posted. The operator on the ground shall be covered by a bond in his/her own name as principal, or a bond in the name of the lessee or sublessee, provided that a consent of the surety, or the obligor in the case of a personal bond, to include the operator under the coverage of the bond is furnished to the Bureau office maintaining the bond.~~

DELETE 43 C.F.R. § 3104.3: STATEWIDE AND NATIONWIDE BONDS.

~~(a) In lieu of lease bonds, lessees, owners of operating rights (sublessees), or operators may furnish a bond in an amount of not less than \$25,000 covering all leases and operations in any one State.~~

~~(b) In lieu of lease bonds or statewide bonds, lessees, owners of operating rights (sublessees), or operators may furnish a bond in an amount of not less than \$150,000 covering all leases and operations nationwide.~~

DELETE 43 C.F.R. § 3104.4: UNIT OPERATOR'S BOND.

~~In lieu of individual lease, statewide, or nationwide bonds for operations conducted on leases committed to an approved unit agreement, the unit operator may furnish a unit operator bond in the manner set forth in § 3104.1 of this title. The amount of such a bond shall be determined by the authorized officer. The format for such a surety bond is set forth in § 3186.2 of this title. Where a unit operator is covered by a nationwide or statewide bond, coverage for such a unit may be provided by a rider to such bond specifically covering the unit and increasing the bond in such amount as may be determined appropriate by the authorized officer.~~

RENUMBER 43 C.F.R. § 3104.5 TO § 3104.2: INCREASED AMOUNT OF BONDS.

(a) When an operator desiring approval of an Application for Permit to Drill has caused the Bureau to make a demand for payment under a bond or other financial guarantee within the 5-year period prior to submission of the Application for Permit to Drill, due to failure to plug a well or reclaim lands completely in a timely manner, the authorized officer shall require, prior to approval of the Application for Permit to Drill, a bond in an amount equal to the costs as estimated by the authorized officer of plugging the well and reclaiming the disturbed area involved in the proposed operation, or in the minimum amount as prescribed in this subpart, whichever is greater.

(b) The authorized officer may require an increase in the amount of any bond whenever it is determined that the operator poses a risk due to factors, including, but not limited to, a history of previous violations, a notice from the Service that there are uncollected royalties due, or the total cost of plugging existing wells and reclaiming lands exceeds the present bond amount based on the estimates determined by the authorized officer. The increase in bond amount may be to any level specified by the authorized officer, but in no circumstances shall it exceed the total of the estimated costs of plugging and reclamation, the amount of uncollected royalties due to the Service, plus the amount of monies owed to the lessor due to previous violations remaining outstanding.

RENUMBER 43 C.F.R. § 3104.6 TO §3104.3: WHERE FILED AND NUMBER OF COPIES.

All bonds shall be filed in the proper BLM office on a current form approved by the Director. A single copy executed by the principal or, in the case of surety bonds, by both the principal and an acceptable surety is sufficient. A bond filed on a form not currently in use shall be acceptable, unless such form has been declared obsolete by the Director prior to the filing of such bond. For purposes of §§ 3104.2 and 3104.3(a) of this title, bonds or bond riders shall be filed in the

Bureau State office having jurisdiction of the lease or operations covered by the bond or rider. Nationwide bonds may be filed in any Bureau State office (See § 1821.2-1).

RENUMBER 43 C.F.R. § 3104.7 TO § 3104.4: DEFAULT.

(a) Where, upon a default, the surety makes a payment to the United States of an obligation incurred under a lease, the face amount of the surety bond or personal bonds and the surety's liability thereunder shall be reduced by the amount of such payment.

(b) After default, where the obligation in default equals or is less than the face amount of the bond(s), the principal shall either post a new bond or restore the existing bond(s) to the amount previously held or a larger amount as determined by the authorized officer. In lieu thereof, the principal may file separate or substitute bonds for each lease covered by the deficient bond(s). Where the obligation incurred exceeds the face amount of the bond(s), the principal shall make full payment to the United States for all obligations incurred that are in excess of the face amount of the bond(s) and shall post a new bond in the amount previously held or such larger amount as determined by the authorized officer. The restoration of a bond or posting of a new bond shall be made within 6 months or less after receipt of notice from the authorized officer. Failure to comply with these requirements may subject all leases covered by such bond(s) to cancellation under the provisions of § 3108.3 of this title.

AMEND AND RENUMBER 43 C.F.R. § 3104.8 TO § 3104.5: TERMINATION OF PERIOD OF LIABILITY.

The authorized officer shall not give consent to termination of the period of liability of any bond unless an acceptable replacement bond has been filed or until final abandonment and reclamation is completed and approved and all the terms and conditions of the applicable geographic area development plan, reclamation plan, and lease(s) have been met.

## V. ORGANIZATIONAL DESCRIPTION OF PETITIONERS'

Western Organization of Resource Councils ("WORC") is a network of grassroots organizations from seven states in the West (Colorado, Idaho, Montana, North Dakota, Oregon, South Dakota and Wyoming) that includes 9,500 members and 45 local community groups. The members of these groups are farmers, ranchers, small business owners, working people and retirees who seek to conserve natural resources, family farms and rural communities. WORC has many members who have been harmed by oil and gas development on their split estate lands, and who have a direct interest in the type and success of oil and gas reclamation and financial assurance regulations.

Natural Resources Defense Council ("NRDC") is a national non-profit environmental membership organization with more than 650,000 members throughout the United States and a staff of lawyers, scientists, and other environmental specialists. NRDC members use and enjoy public lands in and throughout the western states – including Wyoming, Montana, Colorado, Utah and New Mexico – for a variety of purposes, including: recreation, birding, solitude,

scientific study, and aesthetic appreciation, as well as for economic activities, such as ranching. NRDC has had a longstanding and active interest in the protection of the public lands in the West including decades of committed work on responsible energy development, including oil and gas extraction and, over the past six years, coalbed methane development.

New Mexico Wildlife Federation (“NMWF”) is a statewide organization of sportsmen, conservationists and other concerned citizens dedicated to the education of the public, the conservation of our environment and the wise use of our natural resources. Founded in 1914, NMWF’s mission is to conserve and restore New Mexico’s wildlife and habitat on a landscape scale. NMWF is an affiliate of the National Wildlife Federation (NWF), and their combined membership in New Mexico is approximately 6,000. As sportsmen, conservationists, birders and recreationists, NMWF members want to ensure that their traditional uses, quality of life and enjoyment of our public lands are preserved for present and future generations. NMWF’s members are deeply concerned about the increasing degradation and magnitude of the environmental impacts related to oil and gas development in New Mexico and in other areas of the Nation.

Powder River Basin Resource Council (PRBRC) is located in northeastern, Wyoming and was founded in 1973 by ranchers and citizens concerned about the impacts to their land and communities from proposed unregulated coal strip mines. The organization was instrumental in the passage of state and federal regulations to require the responsible development of coal mines. PRBRC stands for the stewardship of our natural resources so they will serve both present and future generations. We work to ensure the viability of family farms and ranches to preserve our unique quality of life and to encourage and enhance civic participation and democratic principals.

Northern Plains Resource Council (Northern Plains) was founded in 1972 when huge energy corporations threatened the homes and livelihoods of farmers and ranchers in southeastern Montana. Northern Plains and its eleven affiliate partners across the state organize Montana citizens to protect Montana’s clean water, family farms and ranches and unique quality of life. Northern Plains is a grassroots conservation and family agriculture group that gets the job done-protecting the Northern Plains and the people who make their home there.

Dakota Resource Council (DRC) is a grass roots organization working to protect local economies, family farms and insure responsible development of oil, gas, and coal resources in North Dakota. DRC was formed in 1978 to provide farmers and ranchers with the tools they needed to resolve the problems that accompanied oil and gas drilling in western North Dakota, among other purposes. DRC is still active today in the quest for responsible development of oil and gas. Since its inception, DRC has improved coal mine reclamation policy, protected water resources from irresponsible development of oil and gas, protected municipal waste services, increased recycling, helped foster wind energy development, protected farmers from the negative impacts of genetically engineered wheat and kept state government and institutions accountable to the public. DRC has seven local affiliates that cover all of North Dakota. DRC is one of seven state member groups of the Western Organization of Resource Councils.

Western Colorado Congress (WCC) is an alliance of eight community groups and 3,000 members located on the Western Slope of Colorado. WCC's basic purpose is to organize people to participate effectively in decisions that affect their lives. WCC exists not only to address the root causes of critical issues facing Colorado's Western Slope, but also to develop a strong, ongoing voice for people who make their home there. WCC has been working to address the social and environmental problems caused by oil and gas drilling for over 20 years.